



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,490	04/17/2001	Bradley N. Maker	M-9939 US	8530

36257 7590 10/18/2006
PARSONS HSUE & DE RUNTZ LLP
595 MARKET STREET
SUITE 1900
SAN FRANCISCO, CA 94105

EXAMINER

PROCTOR, JASON SCOTT

ART UNIT PAPER NUMBER

2123

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/836,490	Applicant(s) MAKER, BRADLEY N.	
	Examiner Jason Proctor	Art Unit 2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-41 and 43-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-41 and 43-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/9/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1, 4-41, and 43-47 were rejected in the Office Action of 7 March 2006.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4 August 2006 has been entered.

Applicants' response has amended claims 1, 14, 25, 36, and 47. Claims 1, 4-41, and 43-47 are pending in this application.

Claims 1, 4-41, and 43-47 are rejected.

Claim Objections

1. Claims 1, 14, 25, 36, and 47 are objected to because of the following informalities: The claim language "an implicit method of analyzing the effect of the load or other influence" (claim 1), "an implicit method of analyzing the effect" (claim 14), "an implicit simulation method" (claim 25), "an implicit method" (claims 36 and 47), and similarly the "explicit" methods recited by those claims are generic recitations of concepts broader than the disclosed invention. The specification teaches that:

These methods are used to solve transient dynamic equations of motion and thus obtain static equilibrium solutions to the equations (page 2, lines 3-4)

In contrast, the claims are broadly and generically drawn to "an implicit method of analyzing the effect of the load or other influence." The claim does not specify what aspect of the method is

Art Unit: 2123

implicit, nor does the claim specify *solving transient dynamic equations* or *obtaining static equilibrium solutions*. The plain meaning of the claim language is broader than the disclosed invention.

The Examiner respectfully suggests claim language such as “an implicit method of solving transient dynamic equations of motion” and the like.

Claim Rejections - 35 USC § 101

35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1, 4-41, and 43-47 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106(II)(A) reads as follows:

The claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of “real world” value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); *In re Ziegler*, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.

Regarding claims 1 and 47, the method fails to produce a useful, concrete, and tangible result. Merely “simulating the effect of a load or other influence on a system” fails this test because the claim provides no steps for delivering or acting upon those results. The claim, as written, is narrow enough to encompass merely solving the finite element simulation, which is a mathematical process.

Claim language that positively recites displaying, storing, or otherwise acting upon the result of the simulation may overcome this ground for rejection.

Claim 14 recites a storage medium defined in terms of the method performed by stored computer programs. This claim fails to produce a useful, concrete, and tangible result for the reasons set forth above.

Claim 25 recites a computer system defined in terms of the method performed by computer programs. This claim fails to produce a useful, concrete, and tangible result for the reasons set forth above.

Claim 36 defines "a data signal embodied in a carrier wave" and is nonstatutory because a data signal is not one of the four categories of invention established by 35 U.S.C. § 101. Additionally, overlooking the data signal grounds for rejection, claim 36 defines computer programs in terms of their instructions rather than their functionality. Such a recitation defines computer software *per se* and is nonstatutory descriptive material.

To expedite a complete examination of the instant application the claims rejected under 35 U.S.C. § 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 47 is rejected under 35 U.S.C. § 102(b) as being anticipated by US Patent No. 5,379,227 to Tang et al.

Regarding claim 47, Tang discloses performing a finite element simulation using an implicit method (column 3, lines 8-18). The “threshold” in Tang is greater than the time necessary to find a solution using the implicit method.

Potentially Allowable Subject Matter

4. Claims 1, 4-41, and 43-46 appear to define potentially allowable subject matter as concerns 35 U.S.C. §§ 102, 103, and 112. The Examiner reserves a statement of reasons for allowance until the issues under 35 U.S.C. § 101 have been resolved.

Conclusion

Art considered pertinent by the examiner but not applied has been cited on form PTO-892.

Art Unit: 2123

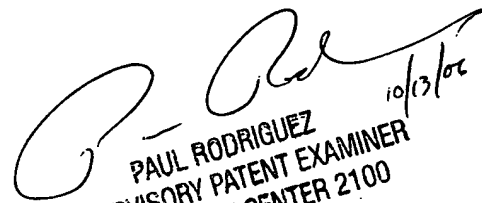
The publication "A combined implicit-explicit algorithm in time for non-linear finite element analysis" by J. L. Curiel Sosa et al. appear to disclose, at least conceptually, the claimed invention. This reference was published in 2005 and does not constitute prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Proctor
Examiner
Art Unit 2123


PAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100
10/13/06

jsp